



Hydrological Society  
of South Australia Inc.

# HydSoc SA Technical Meeting

Thursday 24<sup>th</sup> August 2017

Level 7, Ingkarni Wardli Building,  
Adelaide University

## Adelaide's Desalination Plant Implications for the marine ecosystem

Myths and Facts  
Tim Kildea SAWC

[PTO for more information](#)

[Contact Bob Newman 0439 821 742](#)

### Agenda

3.00pm – Nibbles and Drinks

Meet the Speaker

3:30pm – Presentation

Contact us

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Location: Level 7

Ingkarni Wardli Building,

Adelaide University

North Terrace Adelaide



**HydSoc SA Technical Meeting Thursday 24th August 2017**  
**Adelaide's Desalination Plant -Implications for the marine ecosystem**  
**Tim Kildea SAWC**

**Topic**

**A discussion on the myths and facts associated with marine discharges from a Seawater Reverse Osmosis Desalination Plant.**

Desalination has come to the fore in Australia as a means of “water proofing” Australian coastal cities against drought. The construction of large desalination plants along the coast has generated considerable public debate, with questions raised by the community about the potential impacts of these plants on the local environment. In a recent review of the impacts associated with desalination plants, it was noted that the greater proportion of published information was descriptive and provided little quantitative data that could be assessed independently. In Australia, a large number of detailed monitoring studies have been developed to assess the environmental performance of seawater reverse osmosis (SWRO) desalination plants. These studies have provided a substantial volume of information, which in general is lost in the grey literature of internal reports to regulatory bodies. The presentation will discuss some of the “known knowns and the known unknowns” of marine discharges associated with the operation of a SWRO desalination plant based on experiences acquired from the construction and operation of the Adelaide Desalination Plant. In particular the discussion will focus on the discharge of saline concentrate waste into the marine environment and provide some results on ambient salinity and dissolved oxygen concentrations, adjacent to the outfall.

**Speaker**

Tim Kildea has over twenty years' experience working on temperate and tropical marine ecosystems, where research interests have been predominantly focused on macroalgal and microalgal ecology, water quality and environmental impact assessment associated with dredging, aquaculture, wastewater and desalination plant discharges. The skills developed have been utilised in a wide range of projects, which have led to international collaborations in India, New Zealand, Brazil and Taiwan. These partnerships have resulted in over 250 research reports, peer reviewed publications, journal articles and a book chapter.